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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/768,398 | 01/24/2001 | Conrad F. Fingerson | 9538.21US01 | 1353 |

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| EXAMINER |
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MCDERMOTT, KEVIN

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| ART UNIT | PAPER NUMBER |
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3635

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/768,398

Applicant(s)

FINGERSON ET AL

Examiner

McDermott, Kevin

Art Unit

3635

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) 18-23 is/are withdrawn from consideration.
5) Claim(s) ____ is/are allowed.
6) Claim(s) 1-10 and 12-17 is/are rejected.
7) Claim(s) 11 is/are objected to.
8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 24 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

4) Interview Summary (PTO-413) Paper No(s). _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sheath from claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 14, line 1 recites a "sheath". The specification does not discuss a sheath.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, last line recites "itself". This is considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 as best understood, and claims 2, 3, 6, 12, 13, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fingerson.

Fingerson is directed towards a utility line support structure.

Regarding claim 1 as best understood, Fingerson discloses in figures 2, 3, and 6, and in column 4, line 29 to column 6, line 30, a utility line support structure 10 including a hollow pultruded beam 20 having transverse holes 22 extending therethrough. Beam 20 is made using glass fibers and liquid resin to result in a cured product having a uniform cross section. Bushings 30 are inserted into the transverse holes 22 and include hollow inner member 32/33 and a pair of integral washers 34 arranged on opposite ends of inner member 32 and against outer surface 24 of beam 20. The bushing supports axial loads which can be applied by mounting bolts 60, bolts for attaching the insulators 62, or other structure attached to a bushing 30 for supporting a utility line. The primary purpose of the bushing arrangement is to provide structural

support to prevent compression damage to beam 20 as would otherwise occur when bolt 60 is tightly torqued.

Bushings 30 are the claimed hollow reinforcing member having an inner diameter approximately the same as the transverse hole 22 and an outside diameter, defined by the outer perimeter of integral washers 34, larger than the transverse hole 22 diameter. Bolts 60 are inserted through both the beam 20 and the bushing/reinforcing member 32.

Regarding claim 2, the bushing 32/33 has a combined length sufficient to fit within first and second opposing interior walls of the hollow beam 20.

Regarding claim 3, it does not matter how the claimed structure was manufactured. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product on the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

Regarding claim 6, as discussed above in the rejection of claim 1, Fingerson discloses the beam 20 being made from a fiber-reinforced material.

Regarding claim 12, Fingerson discloses in figure 5 and in column 7, lines 43-49, end caps 50 extending over opposite ends of the beam 20.

Regarding claim 13, Fingerson discloses the end caps 50 being plastic molded and an appropriate adhesive 52 applied to an inner side 54 of peripheral walls 56 of end caps 50 to sealingly secure end caps 50 to outer surface 24 of beam 20. The end caps

50 are to prevent moisture from entering the beam 20. Because Fingerson discloses all the claimed structural limitations, it is inherently capable of providing mechanical support to the beam 20.

Regarding claim 15, figure 6 and column 6, lines 20-28, disclose cross-arm 70 attached to the utility pole 64 with a single mounting bolt 60 inserted through short axis bushing 74 at the center of the beam.

Regarding claim 16, column 4, lines 61-64 disclose the bushings 30 being used both to mount beam 20 and to support insulators 62. Since holes are required for the bushings 30, this implies that the holes are also necessary.

Regarding claim 17, figure 6 discloses the beam 20 having a rectangular cross section with first and second axes, wherein the bushings 70 are used to mount the beam 20 to a utility pole along a first axis, and the bushings 75 are used to mount insulators along a second axis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fingerson.

Regarding claims 3 and 4, Fingerson's disclosure is discussed above. However, Fingerson does not specifically disclose the size of the inner and outer diameters of the bushing 30.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the inner diameter less than or equal to about 2.5 centimeters, and to make the outer diameter greater than about 2.5 to less than about 5 centimeters, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

One of ordinary skill would have made such a modification so the bushing 30 could be used with bolt holes able to accommodate several different bolt sizes.

Regarding claim 10, Fingerson's disclosure is discussed above. However, Fingerson does not specifically disclose attaching the bushings 30 to the beam 20 using an adhesive.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an adhesive to secure the bushing to the beam 20, since Applicant has not disclosed the using an adhesive solves any stated problem or is for any particular purpose.

One of ordinary skill would be motivated to make such a modification to provide a more secure connection between the bushings 30 and the beam 20.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fingerson in view of Hawley's Condensed Chemical Dictionary, Thirteenth Edition, page 888, 18-20th lines from the bottom.

Regarding claims 7 and 8, Fingerson's disclosure is discussed above. Additionally, Fingerson discloses the bushings 30 being made of plastic. Plastic is made from a resin. However, Fingerson does not specifically disclose the bushing being made from fiber reinforced resin, wherein the resin is glass and the resin is polyester. Polyester is a plastic.

Hawley's Chemical Dictionary discloses that plastics can also be reinforced, usually with glass or metallic fibers, for added strength. Fingerson also discloses reinforcing the beam 20 with glass fibers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the bushings 30 of Fingerson of glass fiber reinforced plastic.

One of ordinary skill would have made such a modification to make the bushings 30 stronger.

Regarding claim 9, as noted above polyester is a plastic.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use polyester as the specific plastic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

One of ordinary skill would use polyester as the plastic material because polyester is easily molded.

Allowable Subject Matter

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose and it does not appear obvious to modify the prior art to disclose a utility line support structure having the structural limitations of claim 1, and further holding the reinforcing members in place using foam.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kevin McDermott, whose telephone number is 703-308-8266.

KM 3/4/03



Carl D. Friedman
Supervisory Patent Examiner
Group 3600